

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/848,773	CHEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kimbinh T. Nguyen	2671	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 12/09/05.
2. ☒ The allowed claim(s) is/are 13-24,29,31-39,44,46-49,55 and 57-63.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 11/10/03.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

### **DETAILED ACTION**

1. This action is responsive to amendment filed 12/09/05.
2. Claims 13-24, 29, 31-39, 44, 46-49, 55, 57-63 are pending in the application.

### ***Allowable Subject Matter***

2. Claims 13-24, 29, 31-39, 44, 46-49, 55, 57-63 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 13, 44, the prior art does not teach forming a 3D surface indicative of 3D information contained in two images, forming a variable which indicates a likelihood of error in the 3D surface; wherein forming a plurality of seed voxels which have a probability of being correct greater than a specified amount which makes it unlikely that the voxels will not be correct, and tracing a surface from the plurality of seed voxels.

Claims 14, 39, the prior art does not teach the tracing is carried out for a plurality of the voxels in a multiresolution fashion, such that certain voxels are computed at a coarsest level, and other voxels are computed at a more detailed level.

Claim 29, the prior art does not teach identifying at least one voxel, with a relatively high probability of being a correct 3D measure, forming at least a part of the surface map by propagating from the seed voxel.

Claim 46, the prior art does not teach forming a 3D surface indicative of 3D information contained in two images, forming a variable which indicates a likelihood of error in the 3D surface; and tracing a surface from the plurality of seed voxels which have a low likelihood of error.

Claim 55, the prior art does not teach forming a surface in a volume as a disparity surface; wherein the surface is continuous in the space  $(x,y,d)$  where  $x$  and  $y$  are the coordinate of the pixel, and  $d$  is the amount of disparity of the pixel.

Claim 60, the prior art does not teach forming a disparity map of 3D information for specified coordinates of matching pixels by forming a plurality of areas, finding first information in each of said plurality of areas which have relatively high being correct matches and obtaining said first forming a disparity map of probability of information at a first resolution, and propagating along a surface to obtain second information at a second resolution less than said first resolution.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

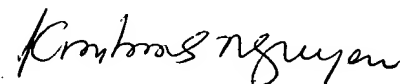
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimbinh T. Nguyen whose telephone number is (571) 272-7644. The examiner can normally be reached on Monday to Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Friday from 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached at (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2671

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 23, 2006

A handwritten signature in black ink, appearing to read "Kimbinh T. Nguyen".

**KIMBINH T. NGUYEN**  
**PRIMARY EXAMINER**